

**ABSTRACT**

A network monitoring system having a router for generating flow records and a monitor device for filtering flow records, extracting internet address information of the remote hosts from the flow records and performing active tests on selected remote hosts. For at least some data packets, the router sends a flow record of the data packet to the monitor. Each flow record contains address, port, and subnet information of the filtered data packet. Based on the information provided by the flow records, the monitor can perform active tests on the selected remote hosts.

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